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64-98. APP
SEQUENCE LISTING

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<120> Rapid Quantitative Analysis of Proteins or Protein Function in Complex Mixture

<130> 64-98A

<140> Not assigned
<141> 2001-04-20

<150> 09/383,062
<151> 1999-08-25

<150> 60/097,788
<151> 1998-08-25

<160> 64

<170> PatentIn Ver. 2.0

<210> 1
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Heptapeptide motif found in substrates for glycosylation

<400> 1
Tyr Gln Ser Asn Ser Thr Met
1 5

<210> 2
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 2
Lys Ala Leu Cys Ser Glu Lys
1 5

<210> 3
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 3
Lys Cys Glu Val Phe Arg
1 5

<210> 4
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 4
Lys Leu Asp Gln Trp Leu Cys Glu Lys
1 5

<210> 5
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 5
Lys Phe Leu Asp Asp Asp Leu Thr Asp Asp Ile Met Cys Val Lys
1 5 10 15

<210> 6
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 6
Lys Asp Asp Gln Asn Pro His Ser Ser Asn Ile Cys Asn Ile Ser Cys
1 5 10 15

Asp Lys

<210> 7
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 7
Lys Gly Tyr Gly Gly Val Ser Leu Pro Glu Trp Val Cys Thr Thr Phe
1 5 10 15

His Thr Ser Gly Tyr Asp Thr Gln Ala Ile Val Gln Asn Asn Asp Ser
20 25 30

Thr Glu Tyr Gly Leu Phe Gln Ile Asn Asn Lys
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40

<210> 8
 <211> 6
 <212> PRT
 <213> bovine

 <220>
 <221> VARIANT
 <222> (3)
 <223> C at position 3 is ICAT- labeled cysteinyl residue

<400> 8
 Ala Leu Cys Ser Glu Lys
 1 5

<210> 9
 <211> 13
 <212> PRT
 <213> bovine

 <220>
 <221> VARIANT
 <222> (11)
 <223> C at position 11 is ICAT-labeled cysteinyl residue.

<400> 9
 Phe Leu Asp Asp Leu Thr Asp Asp Ile Met Cys Val Lys
 1 5 10

<210> 10
 <211> 10
 <212> PRT
 <213> chicken

 <220>
 <221> VARIANT
 <222> (8)
 <223> C at position 8 is ICAT-labeled cystenyl residue.

<400> 10
 Ala Asp His Pro Phe Leu Phe Cys Ile Lys
 1 5 10

<210> 11
 <211> 12
 <212> PRT
 <213> chicken

 <220>
 <221> VARIANT
 <222> (10)
 <223> C at position 10 is ICAT labeled cysteinyl residue.

<400> 11
 Tyr Pro Ile Leu Pro Glu Tyr Leu Gln Cys Val Lys
 1 5 10

<210> 12
<211> 8
<212> PRT
<213> E coli

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 12
Leu Thr Ala Ala Cys Phe Asp Arg
1 5

<210> 13
<211> 13
<212> PRT
<213> E coli

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 13
Ile Gly Leu Asn Cys Gln Leu Ala Gln Val Ala Glu Arg
1 5 10

<210> 14
<211> 17
<212> PRT
<213> E coli

<220>
<221> VARIANT
<222> (14)
<223> C at position 14 is ICAT-labeled cysteinyl residue.

<400> 14
Ile Ile Phe Asp Gly Val Asn Ser Ala Phe His Leu Trp Cys Asn Gly
1 5 10 15

Arg

<210> 15
<211> 9
<212> PRT
<213> bovine

<220>
<221> VARIANT
<222> (6)
<223> C at position 6 is ICAT-labeled cysteinyl residue.

Q43
<400> 15
Trp Glu Asn Gly Glu Cys Ala Gln Lys

<210> 16
<211> 14
<212> PRT
<213> bovine

<220>
<221> VARIANT
<222> (12)
<223> C at position 12 is ICAT-labeled cysteinyl residue.

<400> 16
Leu Ser Phe Asn Pro Thr Gln Leu Glu Glu Gln Cys His Ile
1 5 10

<210> 17
<211> 14
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (13)
<223> C at position 13 is ICAT-labeled cysteinyl residue.

<400> 17
Val Pro Thr Pro Asn Val Ser Val Val Asp Leu Thr Cys Arg
1 5 10

<210> 18
<211> 17
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (1)..(17)
<223> C at positions 7 and 11 are ICAT-labeled cysteinyl residues.

<400> 18
Ile Val Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu Ala
1 5 10 15

Lys

<210> 19
<211> 15
<212> PRT
<213> rabbit

13
<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT-labeled cysteinyl residue.

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<400> 19
Ile Cys Gly Gly Trp Gln Met Glu Glu Ala Asp Asp Trp Leu Arg
1 5 10 15

<210> 20
<211> 16
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 20
Thr Cys Ala Tyr Thr Asn His Thr Val Leu Pro Glu Ala Leu Glu Arg
1 5 10 15

<210> 21
<211> 16
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 21
Trp Leu Val Leu Cys Asn Pro Gly Leu Ala Glu Ile Ile Ala Glu Arg
1 5 10 15

<210> 22
<211> 12
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (4)
<223> C at position 4 is ICAT-labeled cysteinyl residue.

<400> 22
Lys His Asn Cys Leu His Glu Pro His Met Leu Lys
1 5 10

<210> 23
<211> 21
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

043
<400> 23
Tyr Ser Gly Val Cys His Thr Asp Leu His Ala Trp His Gly Asp Trp
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1

5

10

15

Pro Leu Pro Val Lys
20

<210> 24
<211> 11
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)..(2)
<223> C at positions 1 and 2 are ICAT-labeled cysteinyl residues.

<400> 24
Cys Cys Ser Asp Val Phe Asn Gln Val Val Lys
1 5 10

<210> 25
<211> 21
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 25
Tyr Ser Gly Val Cys His Thr Asp Leu His Ala Trp His Gly Asp Trp
1 5 10 15

Pro Leu Pro Thr Lys
20

<210> 26
<211> 11
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)
<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 26
Cys Ser Ser Asp Val Phe Asn His Val Val Lys
1 5 10

<210> 27
<211> 20
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (14)

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<223> C at position 14 is ICAT-labeled cysteinyl residue.

<400> 27
Thr Phe Glu Val Ile Asn Pro Ser Thr Glu Glu Glu Ile Cys His Ile
1 5 10 15

Tyr Glu Gly Arg
20

<210> 28
<211> 12
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (9)
<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 28
Ser Glu His Gln Val Glu Leu Ile Cys Ser Tyr Arg
1 5 10

<210> 29
<211> 12
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 29
Tyr Arg Pro Asn Cys Pro Ile Ile Leu Val Thr Arg
1 5 10

<210> 30
<211> 25
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 30
Asn Cys Thr Pro Lys Pro Thr Ser Thr Thr Glu Thr Val Ala Ala Ser
1 5 10 15

Ala Val Ala Ala Val Phe Glu Gln Lys
20 25

Wk³

<210> 31
<211> 19
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (17)
<223> C at position 17 is ICAT-labeled cysteinyl residue.

<400> 31
Ser Ile Ala Pro Ala Tyr Gly Ile Pro Val Val Leu His Ser Asp His
1 5 10 15

Cys Ala Lys

<210> 32
<211> 6
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 32
Glu Gln Val Gly Cys Lys
1 5

<210> 33
<211> 24
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (9)
<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 33
Leu Thr Gly Ala Gly Trp Gly Gly Cys Thr Val His Leu Val Pro Gly
1 5 10 15
Gly Pro Asn Gly Asn Ile Glu Lys
20

<210> 34
<211> 13
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (11)
<223> C at position 11 is ICAT-labeled cysteinyl residue.

<400> 34
His His Ile Pro Phe Tyr Glu Val Asp Leu Cys Asp Arg
1 5 10

<210> 35
<211> 6
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 35
Asp Cys Val Thr Leu Lys
1 5

<210> 36
<211> 18
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (3)
<223> C at position 3 is ICAT-labeled cysteinyl residue.

<400> 36
Leu Trp Cys Thr Gln His His Glu Pro Glu Val Ala Leu Asp Gln Ser
1 5 10 15

Leu Lys

<210> 37
<211> 18
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT labeled cysteinyl residue.

<400> 37
Ile Cys Ser Val Asn Leu His Gly Asp His Thr Phe Ser Met Glu Gln
1 5 10 15

Met Lys

<210> 38
<211> 6
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 38

Ile Cys Ser Gln Leu Lys
 1 5

<210> 39
 <211> 9
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (5)
 <223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 39
 Gly Gly Thr Gln Cys Ser Ile Met Arg
 1 5

<210> 40
 <211> 30
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 40
 Asn Cys Phe Pro His His Gly Tyr Ile His Asn Tyr Gly Ala Phe Pro
 1 5 10 15
 Gln Thr Trp Glu Asp Pro Asn Val Ser His Pro Glu Thr Lys
 20 25 30

<210> 41
 <211> 13
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 41
 Val Cys His Ala His Pro Thr Leu Ser Glu Ala Phe Lys
 1 5 10

<210> 42
 <211> 14
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (11)
 <223> C at position 11 is ICAT-labeled cysteinyl residue.

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<400> 42
Lys Gly Trp Thr Gly Gln Tyr Thr Leu Asp Cys Asn Thr Arg
1 5 10

<210> 43
<211> 10
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 43
Ser Val Val Leu Cys Asn Ser Thr Ile Lys
1 5 10

<210> 44
<211> 23
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)
<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 44
Cys Thr Gly Gly Ile Ile Leu Thr Ala Ser His Asn Pro Gly Gly Pro
1 5 10 15
Glu Asn Asp Met Gly Ile Lys
20

<210> 45
<211> 17
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (4)
<223> C at position 4 is ICAT-labeled cysteinyl residue.

<400> 45
Leu Ser Ile Cys Gly Glu Glu Ser Phe Gly Thr Gly Ser Asn His Val
1 5 10 15

Arg

AB³
<210> 46
<211> 10
<212> PRT
<213> yeast
<220>
<221> VARIANT

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<222> (3)
<223> C at position 3 is ICAT-labeled cysteinyl residue.

<400> 46
Ile Pro Cys Leu Ala Asp Ser His Pro Lys
1 5 10

<210> 47
<211> 17
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)
<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 47
Cys Ile Asn Leu Ser Ala Glu Lys Glu Pro Glu Ile Phe Asp Ala Ile
1 5 10 15

Lys

<210> 48
<211> 12
<212> PRT
<213> Yeast

<220>
<221> VARIANT
<222> (1)
<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 48
Cys Ala Tyr Pro Ile Asp Tyr Ile Pro Ser Ala Lys
1 5 10

<210> 49
<211> 23
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (20)
<223> C at position 20 is ICAT-labeled cysteinyl residue.

<400> 49
Ile Val Glu Glu Pro Thr Ser Lys Asp Glu Ile Trp Trp Gly Pro Val
1 5 10 15

Asn Lys Pro Cys Ser Glu Arg
20

3
<210> 50
<211> 12
<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (9)

<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 50

Ala Leu Val His His Tyr Glu Glu Cys Ala Glu Arg
1 5 10

<210> 51

<211> 14

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (2)

<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 51

Ser Cys Gly Val Asp Ala Met Ser Val Asp Asp Leu Lys Lys
1 5 10

<210> 52

<211> 24

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (8)

<223> C at position 8 is ICAT-labeled cysteinyl residue.

<400> 52

His Pro Glu Met Leu Glu Asp Cys Phe Gly Leu Ser Glu Glu Thr Thr
1 5 10 15Thr Gly Val His His Leu Tyr Arg
20

<210> 53

<211> 11

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (2)

<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 53

Glu Cys Ile Asn Ile Lys Pro Gln Val Asp Arg
1 5 10

<210> 54

<211> 25

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (14)

<223> C at position 14 is ICAT-labeled cysteinyl residue.

<400> 54

Gly Phe His Ile His Glu Phe Gly Asp Ala Thr Asn Gly Cys Val Ser
1 5 10 15Ala Gly Pro His Phe Asn Pro Phe Lys
20 25

<210> 55

<211> 9

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (5)

<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 55

Arg Gly Asn Val Cys Gly Asp Ala Lys
1 5

<210> 56

<211> 6

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (1)

<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 56

Cys Gly Gly Ile Asp Lys
1 5

<210> 57

<211> 20

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (8)

<223> C at position 8 is ICAT-labeled cysteinyl residue.

<400> 57

Phe Val Pro Ser Lys Pro Met Cys Val Glu Ala Phe Ser Glu Tyr Pro
1 5 10 15Pro Leu Gly Arg
20

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<210> 58
<211> 20
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (19)
<223> C at position 19 is ICAT-labeled cysteinyl residue.

<400> 58
Ile Pro Ile Phe Ser Ala Ser Gly Leu Pro His Asn Glu Ile Ala Ala
1 5 10 15
Gln Ile Cys Arg
20

<210> 59
<211> 10
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 59
His Tyr Ser Leu Cys Ser Ala Ser Thr Lys
1 5 10

<210> 60
<211> 15
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (13)
<223> C at position 13 is ICAT-labeled cysteinyl residue.

<400> 60
Arg Val Pro Thr Pro Asn Val Ser Val Val Asp Leu Thr Cys Arg
1 5 10 15

<210> 61
<211> 19
<212> PRT
<213> Streptomyces lividans

AK3
<400> 61
Glu Leu Gly Lys Pro Val Leu Thr Ala Asn Gln Val Thr Ile Trp Glu Gly
1 5 10 15
Leu Arg

<210> 62
<211> 20
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown Organism: Unidentified

<400> 62
Asn Ile Ala Asn Pro Asn Val Tyr Thr Glu Thr Leu Thr Ala Ala Thr Val
1 5 10 15

Cys Thr Ile
20

<210> 63
<211> 20
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown Organism: Unidentified

<400> 63
Tyr Leu Ala Leu Leu Pro Ser Asp Ala Glu Gly Pro His Gly Gln Phe Val
1 5 10 15

Thr Asp Lys
20

*Act 3
Conclude*
<210> 64
<211> 21
<212> PRT
<213> Homo sapiens

<400> 64
Leu Ala Leu Leu Val Leu Val Ala Pro Ala Met Ala Ala Gly Asn Gly Glu
1 5 10 15

Asp Leu Arg Asn
20